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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,746	12/09/2004	Thomas Engelberg	10191/3651	5938
26646	7590	07/12/2006	EXAMINER	
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			TRIEU, VAN THANH	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary**Application No.**

10/517,746

Applicant(s)

ENGELBERG ET AL.

Examiner

Van T. Trieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because the missing labels in blocks 1-5 shown in Figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 11-15, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by **Pirim** [US 6,717,518].

Regarding claim 11, the claimed method for detecting a person in a space, comprising: producing spatial data about the space to be monitored via at least one depth sensor (the video camera sensor 13, 310, see Figs. 1, 11 and 18, col. 6, lines 39-48); and using at least one sub-model which is sub-dividable into further sub-models for at least one selected body part of a human; adapting the sub-models using the spatial data, wherein the adaptation is checked by position parameters between the sub-models of different body parts; and recognizing the person using a complete model made up of checked sub-models (the spatial and temporal processing unit 11 selecting sub-area of the image to identify human facial characteristic, such as eye, nose and head, see Figs. 1 and 11, col. 2, lines 41-67, col. 3, lines 1-67, col. 4, lines 1-24, col. 6, lines 39-67, col. 7, lines 1-31).

Regarding claim 12, the claimed complete model is adapted to track the persons over time by further adapting the sub-models using the data at predetermined intervals, see col. 15, lines 30-52, col. 22, lines 20-45, col. 28, lines 52-67 and col. 29, lines 1-10).

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Regarding claim 13, the claimed at least one selected body part is the head of a human (selected head of a human, see col. 3, lines 54-63).

Regarding claim 14, the claimed at least one selected body part is the shoulder, which reads upon the selection a facial characteristic of the driver.

Regarding claim 15, the claimed intensity information from the spatial data is used (see col. 21, lines 46-65).

Regarding claim 18, the claimed depth sensor has at least one image pickup (the CCD camera 13, 310, see Figs. 1 and 11, col. 6, lines 45).

Regarding claim 19, the claimed at least one image pickup includes a video sensor (the video camera 13, 310, see Figs. 1 and 11, col. 6, line 43).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pirim et al** [US 6,717,518] in view of **Breed et al** [US 6,324,453].

Regarding claim 16, **Pirim et al** fails to disclose the at least part of the complete model is transmitted for occupant classification to a restraint system in a vehicle in which a person is located. However, **Pirim et al** teaches that the CCD/video camera 310 for detecting the presence of a person/driver in the driver's seat, then the controller 42 sets the validation units to detect movement of the driver into the vehicle driver' seat, see Fig. 21, col. 25, lines 17-42. **Breed et al** suggests that the CCD array 110,110, 113 and 114 capture images of a person in a driver's seat, and then an infrared transmitter and CCD array receivers 620 and 621 are positioned in a convenient location proximate the occupant's shoulder, such as in connection with the headliner, above and usually to the outside of the occupant's shoulder. An appropriate pattern recognition system, as may be resident in control circuitry 120 to which the receivers 620,621 are coupled, as described above is then used to determine the location and position of the shoulder. This information is provided by control circuitry 120 to the seatbelt anchorage height adjustment system 632 (through a conventional coupling arrangement), shown

schematically, which moves the attachment point 631 of the seatbelt 630 to the optimum vertical location for the proper placement of the seatbelt 630, see Fig. 6, col. 31, lines 46-61. Therefore, an artisan would implement the seatbelt/restrain system of **Breed et al** to the CCD video camera of **Pirim et al** for automatically adjusting the seatbelt tension according to the detecting body of a driver by the CCD camera to provide convenience and comforting to the driver.

Regarding claim 20, **Pirim et al** fails to disclose the controlling convenience feature in a vehicle. However, **Pirim et al** teaches that upon detecting the presence of a driver in the vehicle driver' seat and monitoring movement of the driver by CCD camera 310, the controller 42 activates the alarm 322 in response to the detecting driver falling asleep, see Fig. 21, col. 24, lines 36-38. **Breed et al** suggest that the CCD camera array 110, 111, 113, 114 recognize the presence of a human on a particular seat of a motor vehicle and to use this information to affect the operation of another vehicle system such as airbag, heating, air conditioning or entertainment systems, see Figs. 1-6, col. 9, lines 10-31. Therefore, an artisan would expanding the use of the CCD camera detecting information of **Pirim** onto other vehicle operation systems of **Breed et al** since those systems are standard requirement of the vehicle, and to provide convenience and effective to prevent incident to a driver or passenger inside the vehicle.

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Pirim et al** [US 6,717,518] in view of **Losey** [US 6,748,308].

Regarding claim 17, **Pirim et al** fails to disclose the complete model is used in an anti-pinch protection. However, **Pirim et al** teaches that the CCD/video camera 310 for detecting the presence of a person/driver in the driver's seat, then the controller 42 sets the validation units to detect movement of the driver into the vehicle driver' seat, see Fig. 21, col. 25, lines 17-42. **Losey** suggests that the power window system 100 for a vehicle includes an anti-pinch and closing force limitation system sense either by proximity or by touch or resistance of a closing window that an object was or may be impending the progress of the closing window Figs. 1, 3 and 4, col. 4, lines 20-31. Therefore, an artisan would implement the anti-pinch system of **Losey** to the video detecting the presence of a driver of **Pirim et al** for automatically opening/closing the window in respond thereto since the power window are available to all of the vehicle.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Grantz discloses a device for protecting a vehicle against use by third parties using an object detection system to detect facial area of the driver by a CCD camera and compare in an image analysis with stored facial area image information, for actuates a plurality of vehicle systems to enter a state in which the vehicle can be started.


[US 6,252,978]

6. Any inquiry concerning this communication or earlier communications from examiner should be directed to primary examiner **Van Trieu** whose telephone number

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is (571) 272-2972. The examiner can normally be reached on Mon-Fri from 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mr. Mike Horabik** can be reached on (571) 272-3068.



Van Trieu
Primary Examiner
Date: 7/8/06